to be neutralized. Toxin and antitoxin given in this proportion, however, is practically non-toxic to man. By injecting small quantities of this preparation a high degree of active immunity may be conferred on patients. It is estimated that sufficient antitoxin units will remain in the blood to confer immunity for a period of two years. It is found, moreover, by obtaining serum from an actively immunized patient and injecting it into a second patient, that the injection of this homologous serum produces an immunity which greatly outlasts that produced by heterologous sera. The remedy is not given out yet for general use. Behring is collecting data from a few clinics. Before administering the serum, the presence or absence of antitoxin in the patient's blood is determined; if present, the quantity of antitoxin is estimated. The presence or absence of diphtheria bacilli in the respiratory passages is also determined. Then after the remedy is given, Behring requires that the quantity of antitoxin units in the patient's blood be determined at intervals for a long period of time and also that throat cultures be examined frequently for diphtheria bacilli. In this way, he plans to obtain exact information as to dosage, reaction, the amount of antitoxin produced in the human blood, and the duration of the protective reaction. When sufficient material has been collected, a further report will be made.

New Preparations and New Principles for the Treatment of Trypanosomiasis.—W. Kolle, O. Hartoch, M. Rothermundt and W. Schürman (*Deutsch med. Woch.*, 1913, xxxix, 825) report the results of important studies of the chemotheraphy of experimental trypanosome infections. The observations were carried out largely upon mice. The organisms used were the trypanosomes of the sleeping sickness, nagana, and dourine. The authors have found that it is possible to cure experimental trypanosome infections of mice with a single intramuscular injection of metallic antimony as well as with various water-insoluble organic and inorganic preparations of antimony, provided the antimony is in the trivalent form. After the injection of metallic antimony and numerous preparations of antimony, however, the mice died of chronic antimony poisoning. Certain antimony compounds nevertheless, are relatively non-toxic when administered intra-muscularly. Of these a 30 per cent. oil emulsion of trioxide of antimony, which the authors designate "trixidin" for the sake of brevity, has proved the most efficient. It is the most active preparation examined, when given intramuscularly. It is found that $\frac{1}{100}$ of the fatal dose is sufficient to cure infections in mice. No evidence of antimony poisoning followed its use. Through one or two intramuscular non-toxic doses of trixidin, sterilization of infected mice is accomplished in 100 per cent. of cases. In its therapeutic index (1 to 100) and in its effectiveness it far surpasses previously studied preparations of antimony. The authors believe it will prove equally non-toxic and useful in the treatment of trypanosomiasis in man. The pentavalent antimony compounds are not only weak pharmacologically and toxicologically, but they are also without any marked therapeutic effect in trypanosome infections. Next the authors tried to find a method of employing trivalent compounds which are too toxic to be safe when given intramuscularly, but which are none the less highly active against the trypanosomes. They have discovered that these preparations when incorporated in an ointment may be used as an inunction with very good results. Thus, metallic antimony and certain insoluble compounds in the form of a salve may cure infections of mice, rats, guinea-pigs, rabbits, and monkeys in about 66 per cent. of cases without the slightest evidence of toxic action. In contra-distinction to therapia magna sterilisans which on account of the large quantity of soluble drug quickly thrown into the circulation is dangerous and which must be repeated at intervals as the experience with salvarsan has shown, the authors designate their antimony treatment, therapia mite curans.

Avian Tuberculosis in Man.—E. LOEWENSTEIN (*Wein. klin. Woch.*, 1913, xxvi, 785) reports observations on three new cases of human infection with avian tubercle bacilli. He summarizes his studies as follows: The occurrence of avian tuberculosis in man is probably much commoner than is generally supposed. The cases are characteristic both bacteriologically and clinically. In all cases in which one finds acid fast bacilli, which are non-pathogenic for guinea-pigs, rabbits and chickens should be inoculated, and pure cultures of the organisms should be obtained. A simpler method of identification of the disease consists in the use of the skin test with avian tuberculin. Children infected only with avian tubercule bacilli do no react to human tuberculin but give a marked skin reaction with avian tuberculin. The clinical course in 2 cases of renal avian tuberculosis suggested benign septicemia with normal morning temperature and an evening rise (to 38.8° C.). The temperature in these 2 cases was uninfluenced by antipyretics; though the disease had lasted two years, the general condition of the patients was good. The local signs were not marked. Both of these patients who reacted only to avian tuberculin were treated with this substance and have remained free from symptoms for a year. The infection may result from eating the eggs of tuberculous hens, as the eggs may contain large numbers of tubercle bacilli. In experimentally infected eggs, soft boiled, the tubercule bacilli were uninjured; from two hard boiled eggs, viable bacilli were recovered.

Lymphocytosis in Chronic Polyarthritis.—F. GUDZENT (*Deutsch med. Woch.*, 1913, xxxix, 387) has made a careful study of the blood picture in 100 cases of chronic polyarthritis. The red cells and hemoglobin showed no noteworthy alterations. The leukocytes were normal in total number. Differential count showed a lymphocytosis in a majority of the cases. It amounted to 25 to 30 per cent. in 19 cases; 30 to 40 per cent. in 42 cases; 40 to 50 per cent. in 24 cases; 50 per cent. in 8 cases. In 9 cases the blood picture was normal. The lymphocytosis was present regardless of the stage of the disease. In view of the uncertainty of the etiology of this symptom complex, it is impossible to speculate as to the cause of the change in the leukocytic formula, but the association of increase in lymphocytes in chronic polyarthritis must be borne in mind when lymphocytosis is discovered.